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U.S. Petent and Trademark Office. U.S. DEPARTMENT OF COMMERCE ation unless it displays a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no pers	sons are required	ro (espond ro a col						
UTILITY	Attorney Docket No.		612.43234X00					
PATENT APPLICATION	First Inventor		HU, LIN-YING					
TRANSMITTAL	, not missing.		METHOD FOR RAPID FORMATION OF A					
INAROUNTAE		STOCHASTIC MODEL REPRESENTATIVE OF A HETEROGENEOUS UNDERGROUND RESERVOIR			RVOIR,			
(Only for new nonprovisional applications under 37 CFR 1.53(b))	Title	CONSTRAINED BY DYNAMIC DATA						
(	Express Mail	LI shel No	1					
	Express wall	Laber IVO.	Mail Stop	Patent Appli	cation	8. PTO		
APPLICATION ELEMENTS		ADDRESS	TO: Commissi	oner for Pate	ents	<u>7</u> 8 ₹		
SEE MPEP chapter 600 concerning utility patent application of	contents.			a VA 22313-1	450	<u>000</u>		
		П		unlianto lora	o table or	.0 (695		
Fee Transmittal Form (e.g., PTO/SB/17)  (Submit an original and a duplicate for fee processing)		7.	ROM or CD-R in description (A)	opendix)	e table of	0/6		
		8. Nucleotide	and/or Amino Acid	Sequence S	Submission	03917		
2. Applicant claims small entity status.			ble, all necessary) nputer Readable Fo	orm (CRF)		0 1		
See 37 CFR 1.27.			nputer Readable Po ation Sequence List					
3. Specification [Total Pages: 20]		•	. CD-ROM or C		es); or			
(preferred arrangement set forth below)			_					
-Descriptive title of the invention -Cross Reference to Related Applications		ÍÌ.	. D paper					
-Statement Regarding Fed sponsored R & D -Reference to sequence listing, a table.		c. Statements verifying identity of above copies						
or a computer program listing appendix		ACCOMPANYING APPLICATION PARTS						
-Background of the Invention -Brief Summary of the Invention			signment Papers (d					
-Brief Description of the Drawings (if filed) -Detailed Description		1 _	CFR 3.73(b) State	_	Power of Attorne	ev.		
-Claim(s)			hen there is an ass		<b>3</b> , 0,10, 0, 7, 110, 7, 1	•		
-Abstract of the Disclosure			glish Translation D	ocument (if a	applicable)			
4. Drawing(s) (35 U.S.C. 113) [Total Sheets: 3]			ormation Disclosur	-	Copies of IDS C	Citations		
5. Oath or Declaration [Total Sheets:	_]		atement (IDS)/PTO					
a Newly executed (original or copy)			eliminary Amen <del>dm</del> eturn Receipt Posto		503)			
b. Copy from a prior application (37 CFR 1.63 (d))		14. Kg Ki	should be specifical	ly itemized)	,			
(for continuation/divisional with Box 18 completed)		15. C	ertified Copy of Pric	rity Docume	nt(s)			
i. DELETION OF INVENTOR(S)			foreign priority is c		III S C 122			
Signed statement attached deleting inventor(s)  Named in the prior application, see 37 CFR  16. Nonpublication Rec (b)(2)(B)(i). Application			onpublication Requ )(2)(B)(i). Applican	t must attach	n form PTO/SB/35			
1.63(d)(2) and 1.33(b)	1.63(d)(2) and 1.33(b) or its equivalent.							
6. Application Data Sheet. See 37 CFR 1.76			_	redit Caro	Payment For	n, Claim		
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment,								
or in an Application Data Sheet under 37 CFR 1.76:  Continuation Divisional Continuation-in-part (CIP) of prior application No.:								
Continuation								
Prior application information.		prior application	on, from which an	oath or dec	laration is suppli- corporated by ref	ea unaer ference.		
For CONTINUATION OR DIVISIONAL APPS only: The entire did Box 5b, is considered a part of the disclosure of the accompan The incorporation can only be relied upon when a portion has	iying continuat been inadverte	ently omitted fro	m the submitted a	pplication	parts.			
19. C	ORRESPOND	ENCE ADDRES	S					
						lean below		
Customer Number 020457				OR L Co	orrespondence add	TIESS DEIOW		
Name ANTONELLI, TERRY, STOUT & KRAUS, LLP								
Address	State			Zip Code				
City	Telephone	(703) 312-66	300	Fax	(703) 312-666	6		
Country  Name (Print/Type) Donald E. Stout	1.1		lo. (Attorney/Agent)		26,422			
Name (Print/Type) Donald E. Stout	eul			Date	October 30, 20	003		

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Signature 1450.

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Under the Paperwork Reduction Act of 1995, no person	Complete if Known				
FEE TRANSMITTAL	Application Number				
	Filing Date	October 30, 2003			
for FY 2004	First Named Inventor	HU, LIN-YING			
	Examiner Name				
Effective 10/01/2003. Patent fees are subject to annual revision.					
Applicant claims small entity status. See 37 CFR 1.27	Art Unit	612.43234X00			
OTAL AMOUNT OF PAYMENT (\$) 770.00	Attorney Docket No.				
METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)				
Check ⊠ Credit Card ☐ Money ☐ Other ☐ None Order	3. ADDITIONAL FEES				
Deposit Account:					
Deposit Account 01-2135	arge Entity Small Entity	  Fee Paid			
Number	Fee Fee Fee				
Deposit Account Antonelli, Terry, Stout & Kraus, LLP	Code (\$) Code (\$) 1051 130 2051 65	Fee Description Surcharge – late filing fee or oath			
Name	1001 100   2001	Surcharge – late provisional filing fee or			
he Director is authorized to: (check all that apply) Charge fee(s) indicated below	1052 50 2052 25	cover sheet			
	1053 130 1053 130	Non-English specification			
☐ Charge any additional fee(s) during the pendency of this application.		For filing a request for ex parte reexamination  Requesting publication of SIR prior to			
☐ Charge fee(s) indicated below, except for the filing fee on the above-identified deposit account.		Examination action			
FEE CALCULATION	1805 1,840 1805 1,84	0°Requesting publication of SIR after Examiner action			
. BASIC FILING FEE	1251 110 2251 55	Extension for reply within first month			
Large Entity Small Entity	1252 420 2252 210	Extension for reply within second month			
Code (\$) Code (\$)	1253 950 2253 475	Extension for reply within third month			
1001 770 2001 385 Outly filling fee	1254 1,480 2254 740				
and and Direct Client for		55 Extension for reply within fifth month  Notice of Appeal			
1003   530   2003   265   Plant filling fee   1004   770   2004   385   Reissue filing fee	1401 330 2401 165 1402 330 2402 165	and a second			
1005 160 2005 80 Provisional filing fee	1403 290 2403 145	Request for oral hearing			
SUBTOTAL (1) 770.00	1451 1,510 1451 1,5	10 Petition to institute a public use proceeding			
770.00	1452 110 2452 55	Petition to revive – unavoidable			
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE Fee from	1453 1,330 2453 665				
Extra Claims below Fee Paid	1501 1,330 2501 665 1502 480 2502 240				
Total Claims 16 -20** = 0 x 18 = 0	1502 480 2502 240 1503 640 2503 320				
Indep. 1 -3** = 0 x 86 = 0	1406 130 1460 130	Petitions to the Commissioner			
Claims Multiple Dependent 290 = 0	1807 50 1807 50	Processing fee under 37 CFR 1.17(q)			
Large Entity Small Entity	1806 180 1806 18				
Fee	8021 40 8021 40	Recording each patent assignment per property (times number of properties)  5 Filing a submission after final rejection			
1201 86 2201 43 Independent claims in excess of 3	1809 770 2809 38	(37 ČFR § 1.129(a))			
1203 290 2203 145 Multiple dependent claim, if not paid	1810 770 2810 38	For each additional invention to be examined (37 CFR § 1.129(b))			
1204 86 2204 43 ** Reissue independent claims over original patent	1801 770 2801 38	Cardinand Examination (PCE)			
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802 900 1802 90	111 Lauranimotion			
SUBTOTAL (2) \$ 0.00	Other fee (specify)				
**or number previously paid, if greater; For Reissues, see above.	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 0.00				
		Complete (if applicable)			
SUBMITTED BY	Registration No.	6 422 Telephone 703-312-6600			
Name (Print/Type) Donald E. Stout	rint/Type) Donald E. Stout / (Attorney/Agent) 26,422 relephone 765				
Slanatura / long / Ita		Date 10/30/2003			

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